

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the reasons that follow.

There are 20 claims currently pending in this application.

The Office Action of July 1, 2004 and the references cited therein have been considered. In response to the rejections to the claims, the Applicants provide the following comments. As demonstrated, however, each of the rejections is believed overcome, with the application being placed in condition for allowance. Accordingly, reconsideration and allowance of this application is respectfully requested.

On page 2 of the Office Action, the Examiner has rejected claims 1 and 14 under 35 U.S.C. §103(a). The Examiner believes that Keddy (USPN: 4,634,339) discloses all the limitations of the claims except for the mesh grill configured with openings such that the ratio of opening area to the grill area is more than 40%. The Examiner states that the “Applicant has failed to establish any criticality or synergistic results which are derived from the recited configurations, these limitations are considered a matter of obvious design choice”. The Examiner references Keddy’s Fig. 1, elements 82 and 84.

Keddy discloses a device for moving air quietly (Col. 1, ll. 6-7.). Keddy discloses that the case 26 (read “housing”) incorporates a screen 82, 84, one for each duct 76 and 78 and at least one louver 86, 88 for each of the ducts (Col. 3, ll. 47-50.). However, Keddy does not describe the purpose of the screen or its configuration. At best, it appears to be a means for stopping animals or insects from entering into the mechanism of the device. More significantly, it is also noted that the screens 82, 84 are mounted behind the louvers 86 and 88. In other words, the louvers are on the exterior portion of the housing. In contrast to Keddy, Applicants provide a mesh grill 40 on the outside of the evaporative cooler in front of the louvers as described and illustrated in the present application (See Figs. 3 and 7.).

Applicants also respectfully traverse the Examiner’s characterization that Applicants have failed to establish any criticality or synergistic results which are derived from the recited configurations of the mesh grill 40. Applicants have stated the reason for the mesh

configuration of the mesh grill disclosed and claimed in the present application in paragraphs 3 and 5 of the application as well as paragraph 21. The prior art problem of insufficient air flow is one of the problems addressed by the present configuration and that the mesh grill 40 disclosed and claimed in the present application maximizes the grill openings relative to the grill material to maximize air flow. Further, the configuration of the mesh grill 40 as described in paragraph 21 provides sufficient air flow into the housing 12 across the evaporative media pad 16 with a minimum of pressure drop. The specification also states that the polygon shaped openings also provide an aesthetically pleasing arrangement. The specification also describes, in paragraph 26, that the mesh grill provides uniform dispersion of air across the face of the grill 40 since the configuration provides a more uniform resistance to the air flow and thereby creating many small air currents exiting the cooling system 10. Such configuration is in contrast to the prior art cited in the specification and in contrast to the prior art cited by the Examiner. (See Par. 26.)

Applicants submit that none of the above described features of the mesh grill described and claimed in the present application are present or taught by Keddy and therefore are not obvious design choices as characterized by the Examiner. Accordingly, Applicants respectfully request that the Examiner withdraw his rejection of claims 1 and 14 under 35 U.S.C. §103(a) in light of Keddy.

On page 2, the Examiner has rejected claims 2-4, 8, 15 and 16 under 35 U.S.C. §103(a) as being unpatentable over Keddy in view of Harris, et al (USPN: 5,046,406). The Examiner believes that Keddy discloses all the limitations of the claims except for the plurality of vertical louvers and that Harris discloses the presence of plurality of vertical louvers.

In response, Applicants reiterate their comments relative to Keddy in response to this rejection. Further, Harris discloses an adjustable louver assembly for a room air conditioner having louvers of the type disclosed in the present application as prior art. (See Figs. 1a – 1b.) In other words, the louvers are large flipper-like slats for directing the air flow. Harris does not disclose or suggest that a mesh grill be placed over the louvers as disclosed and claimed in the present application. Applicants submit that one ordinarily skilled in the art

would not combine the teachings of Keddy and Harris as suggested by the Examiner. Accordingly, Applicants respectfully request that the Examiner withdraw his rejection of claims 2-4, 8, 15 and 16 under 35 U.S.C. §103(a).

On page 2, the Examiner has rejected claims 5 and 6 under 35 U.S.C. §103(a) as being unpatentable over Keddy in view of Harris and in further view of Bang, et al (USPN: 5,850,742). The Examiner believes that Keddy in view of Harris discloses all the limitations of the claims except for the apparatus being coupled to an electric motor and that Bang discloses the presence of an apparatus being coupled to an electric motor.

In response, Applicants reiterate their comments with respect to Keddy and Harris above in response to this rejection. With respect to Bang, Bang discloses an apparatus and method of controlling an automatic door of an air conditioner. (See Col. 3, ll. 36-37.) Bang does not disclose or teach a mesh grill mounted on the outside of the louvers as disclosed in the present application. Applicants submit that one ordinarily skilled in the art would not combine the teaching of Keddy, Harris and Bang as suggested by the Examiner. Even if the structures cited by the Examiner were combined, they would not result in the cooling device disclosed and claimed in the present application since none of the cited prior art references provide for the mesh screen mounted outboard of the louver system.

On page 3 of the Office Action, the Examiner has rejected claims 7 and 18 under 35 U.S.C. §103(a) as being unpatentable over Keddy in view of Harris and in further view of Vagedes (USPN: 5,293,920). The Examiner believes that Keddy in view of Harris discloses all the limitations of the claim except for the apparatus being configured to extend through the opening in the mesh grill. The Examiner believes that Vagedes discloses the presence of an apparatus being configured to extend through an opening in a mesh grill.

In response, Applicants reiterate their comments with respect to Keddy and Harris above in response to this rejection. With respect to Vagedes, Applicants submit that Vagedes does not disclose an apparatus being configured to extend through an opening in a mesh grill. In Vagedes' Fig. 3, as best understood, the apparatus mentioned by the Examiner is item 33 which is attached to the louver 19. That tab moves the louver from an open and closed

position on the outside of the basement vent. A screen portion 29 is mounted in a frame 28 having a left side and right side portions 28a and 28b. Slots 30 in the frame portion 28 provide the opening for the tabs 33 and 35 coupled to the louvers. (See Col. 2, ll. 1-15.) Therefore, the apparatus does not extend through the openings in the mesh grill as characterized by the Examiner. Further, it is also noted that the screen portion 29 is mounted behind the louvers of this basement louvered vent. Also, it is noted that there is no powered mechanism for moving air through the louvered basement vent. Accordingly, Applicants believe that one ordinarily skilled in the art would not combine the features of Keddy, Harris and Vagedes as suggested by the Examiner. The structures cited by the Examiner from Keddy, Harris and Vagedes, even if combined, would not operate or result in a device as described and claimed in the present application. Accordingly, Applicants respectfully request that the Examiner withdraw his rejection of claims 7 and 18 under 35 U.S.C. §103(a).

On page 3 of the Office Action, the Examiner has rejected claim 12 under 35 U.S.C. §103(a) as being unpatentable over Keddy. The Examiner believes it is well known in the art of HVAC to design a screen with lateral members having a uniform width to incorporate the features of a screen with lateral members having a uniform width into the system of Keddy for purposes of cost reduction.

Applicants submit that the configuration described in the present application is to minimize the pressure drop as air flows through the evaporative cooler (See paragraphs 19, 21 and 22 which describes the configuration of the mesh grill 40 relative to the air movement, and lowering the pressure drop of the air movement.) Accordingly, Applicants submit that their configuration of the mesh screen 40 is for stated purposes other than cost reduction as suggested by the Examiner.

On page 3, of the Office Action, the Examiner's comments with respect to claims 9, 10, 11, 17, 19 and 20 as not having patentable weight or not being patentably distinct over prior art. In response, Applicants point out that each of those claims depend either directly or indirectly from independent claims 1 and 14 which are deemed patentable over the prior art as discussed above and therefore the Applicants respectfully request that the Examiner withdraw his comments with respect to those claims.

Applicants submit that each prior art patent cited by the Examiner in his rejections of the several claims in the present application have louvers similar or identical to the prior art cited by the Applicants. (See Figs. 1a – 1d.) In other words, they all provide large, flipper-like slats for directing air into and out of the cooling apparatus. Each of the Examiner's cited patents have louvers on the outside of the housing as illustrated in Figs. 1a to 1d of the present application. Although some of the patents cited have a screening portion, that screening portion is mounted behind the louver and there is no discussion as to the purpose of such screening, although it is assumed that the screening is to prevent ingress of animals. In contrast to the cited prior art, the present application discloses and claims a mesh grill 40 on the outside of the evaporative cooler. The mesh grill 40 is configured with openings having a ratio of total opening area OA to total grill material GM area of more than 40% (See paragraph 0021.). It was also disclosed that in contrast to the prior art grills which have a small number of large openings relative to total area of the louver material, the mesh grill of the present disclosure provides a uniform dispersion of air across the face of the grill 40 since the configuration provides a more uniform resistance to the air flow and thereby creating many small air currents exiting the cooling system 10.

Applicants submit that none of the prior art cited by the Examiner, particularly the principal prior art, Keddy, does not teach or suggest such configured mesh grill. Applicants submit that the Examiner is relying on hindsight to make the above obviousness rejections of the cited claims under 35 U.S.C. §103(a). Further, the Examiner has used elements and features from four different references (Keddy, Harris, Bang and Vagedes) in different combinations to support the rejection of the Applicants' claims. Applicants believe that the Examiner is basing his rejection on the mere identification in the prior art of individual components of claimed limitations in the present application. The Examiner has not made any particular finding as to the reason a skilled artisan, with no knowledge of the claimed invention would have selected the components with a combination in the matter claimed in the present application. Therefore, Applicants submit that that which is disclosed and claimed in the present application is not obvious in light of any of the cited prior art or combination of cited prior art as suggested by the Examiner for the reasons set forth above.

Applicants have attempted to respond to the several rejections of the claims to the extent necessary to correct any ambiguity cited by the Examiner and to address the prior art cited by the Examiner but with the intent of not limiting the scope of the invention protection accorded by the patent laws and these claims any further than absolutely necessary. It is respectfully submitted that each outstanding rejection has now been overcome and that each claim is in condition for allowance. Reconsideration under applicable regulations is respectfully requested.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

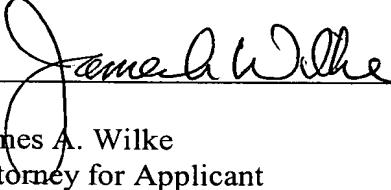
The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 06-1447.

Respectfully submitted,

Date 10 - 01 - 04

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